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PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

ITEM# 20
I.D. # 11937

ENERGY DIVISION **RESOLUTION E-4563**
March 21, 2013

R E S O L U T I O N

Resolution E-4563: Southern California Edison Company ("SCE") requests approval of its Cost-Effectiveness Plan with Revised Result for the Demand Bidding Program.

PROPOSED OUTCOME: This Resolution approves SCE's Cost-Effective Plan with Revised Result for the Demand Bidding Program.

SAFETY CONSIDERATIONS: This Resolution approves a Cost-Effectiveness Plan for an SCE Demand Response Program. Demand Response programs can provide demand reductions at critical times such as during extreme temperatures or when the California Independent System Operator (CAISO) issues a warning or alert. Demand reductions during such times can help avert a rotating outage. Rotating outages can create health and safety threats to the public.

ESTIMATED COST: None

By Advice Letter 2751-E Filed on June 28, 2012

SUMMARY

This Resolution addresses and approves Southern California Edison's (SCE) Cost-Effective Plan with Revised Result for the Demand Bidding Program submitted in Advice Letter 2751-E, pursuant to Ordering Paragraph 48 of D.12-04-045.

BACKGROUND

Decision 12-04-045 (Decision) adopted 2012-2014 Demand Response activities and budgets for Pacific Gas and Electric Company (PG&E), San Diego Gas and Electric Company (SDG&E), and SCE. The Decision addressed the issue of cost-effectiveness for DR programs. It specifically determined that DR programs that have a Total Resource Cost (TRC) test benefit-cost ratio of at least 0.9 are considered 'cost effective' for the purpose of the proceeding. [1] Programs with a TRC test benefit-cost ratio between 0.5 to 0.9 were considered "possibly cost-effective" for the purposes of the proceeding.[2] SCE's Demand Bidding Program (DBP) had a TRC test benefit-cost ratio of 0.74 and was approved with a total budget of $1,483,686, with the authorization of funding contingent upon the submittal of a plan by SCE to improve the cost-effectiveness of the program such that the program's TRC test benefit-cost ratio would be raised to at least 0.9. On June 28, 2012, SCE submitted Advice Letter 2751-E pursuant to that direction. The Advice Letter outlined three steps to improve the cost-effectiveness of DBP:

1. Remove the non-performers from the program,
2. Reduce program labor and Marketing, Education and Outreach (ME&O) costs, and
3. Allocate of 10% of the DBP administrative costs to the Base Interruptible Program (BIP).

SCE is proposing to allocate 10% of DBP administrative costs to the BIP to account for customers who participate in both DBP and BIP (also referred to as 'dual participation'). Current practices in the Demand Response Cost-Effectiveness Protocols (Protocols) credit load impacts of customers who participate in both DBP and BIP solely to BIP.

As a result of these proposed changes, SCE reports a TRC test benefit-cost ratio of 0.97 in 2013 and 0.91 in 2014. By raising the TRC test benefit-cost ratio of the DBP to a level higher than 0.9, SCE states that the program would be cost-

[1] D.12-04-045 Findings of Fact 12.

[2] D.12-04-045 Conclusions of Law 4.

effective as defined in the Decision with the proposed changes, and thus would comply with the Commission's directive for this program.

NOTICE

Notice of AL 2751-E was made by publication in the Commission's Daily Calendar. SCE states that a copy of the Advice Letter was mailed and distributed in accordance with Section 4 of General Order 96-B.

PROTESTS

SCE's Advice Letter AL 2751-E was timely protested by the Division of Ratepayer Advocates (DRA) on July 18, 2012.

SCE responded to DRA's protest on July 25, 2012.

DRA's concerns are addressed in the Discussion section below.

DISCUSSION

In D.12-04-045, the Commission used the Demand Response Cost-Effectiveness Protocols (Protocols) to evaluate SCE's demand response programs for the first time. Given that the Protocols were being used for the first time, the Decision adopted flexibility in its interpretation of the results of the cost-effective analysis. The Decision also concluded that there were certain deficiencies in the Protocols, and ordered that workshops be held to discuss the deficiencies and develop possible solutions.[3]

DRA protested SCE's plan to allocate 10% of the DBP's administrative costs to the BIP. The core issue was that DRA was opposed to a utility "making its own arbitrary and ad-hoc allocation without a proper process in which all parties can participate and the Commission can make an informed decision on this issue."[4]

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[3] D.12-04-045, p.46. Energy Division subsequently held a workshop on October 19, 2012.

[4] Protest of DRA to SCE Advice Letter 2751-E on Cost Effective Plan with Revised Result for the Demand Bidding Program, p. 3.

As a result, DRA recommended that the Commission deny approval of the DBP as proposed.

DRA also recommended that SCE investigate if a "stand-alone" DBP would be cost-effective and present the results of the analysis to the Commission for consideration. DRA's suggestion of a "stand-alone" DBP analysis would account for the load impacts and administrative costs for customers enrolled only in DBP. DRA recommended that if such a program is cost-effective, the Commission approve continuation the stand-alone DBP only.

In response, SCE stated that its aim is to "provide the Commission a different perspective on cost-effectiveness, especially with regard to dual participation programs."[5] Without such an analysis, SCE states that a valuable Demand Response program may be eliminated on the basis of incorrect information.

Under the existing Protocols, when customers are participating in two demand response programs (dual participation), the current Protocols credit the load impact of the dually participating customers to one program, but not both. In the case of DBP and BIP dual participation, the dual-participation MWs are credited to BIP. This practice, in effect, results in understating the MW benefit provided by DBP, as compared with the costs of the program. In its Advice Letter, SCE states "based on MW, the DBP customers who are also enrolled in BIP constitute 88% of the total DBP MW."[6]

Given the additional information provided by SCE in response to DRA's protest, we find SCE's proposed 10% allocation of DBP administrative costs to BIP to be a reasonable temporary solution for the reasons discussed below.

Dual Participation Costs between BIP and DBP

As noted earlier, the current Protocols credit the load impact of the dually participating customers to one program, but not both. In the case of DBP and BIP dual participation, the dual-participation MWs are credited to BIP. The

[5] SCE's Reply to Protest of the Division of Ratepayer Advocates to SCE's Advice 2751-E (Cost-Effective Plan with Revised Results for the Demand Bidding Program).

[6] SCE Advice Letter, Attachment A, p.3.

Protocols follow Resource Adequacy load impact counting rules and credit load impacts to one program in dual participation situations.. However from a cost-effectiveness perspective, this results in inaccurate cost-effectiveness valuation of programs with dually-enrolled customers. During the October 19, 2012 Energy Division workshop on this issue, there was a consensus that the Protocols be revised so that all the costs and benefits of programs which allow dual participation are included in the cost-effectiveness analysis.

SCE proposes to reallocate 10% of the DBP administrative costs to BIP in the DR reporting template. While the 10% reallocation is an estimated number, it addresses some of the deficiency in the current protocols pertaining to the cost-effectiveness valuation of programs with dual participation. Currently, SCE's DBP analysis includes all of the DBP program cost, but only some of the DBP program benefit. Even if SCE removes only 10% of DBP's administrative costs from the calculation of the TRC test benefit-cost ratio (by assigning those costs to BIP), the program becomes cost effective.

SCE calculated alternative cost-effectiveness scenarios to assist the analysis of this Advice Letter. One of the scenarios allocated all DBP costs and all DBP benefits to the DBP program, the TRC test cost-benefit ratio was 2.01 (2012), 2.04 (2013), and 2.02 (2014), making the program highly cost-effective.[7]

As noted by SCE, "the DBP customers who are also enrolled in BIP constitute 88% of the DBP MW." Yet only 10% of DBP's administrative costs will be assigned to BIP for purposes of cost-effectiveness. SCE's 10% allocation is therefore conservative, and likely understates the amount of DBP costs that should be assigned to BIP using customer participation in the two programs as a metric.

The Demand Response Cost-Effectiveness Protocols Are Likely to Evolve
Energy Division staff intends to continue to vet potential changes to the Protocols and these efforts are intended to lead to official Commission modifications to the Protocols, likely in 2013.

[7] SCE response, via email, to Energy Division inquiry on December 6, 2012.

The method of analyzing programs with dually participating customers is likely to change. As a result, SCE's proposed 10% allocation is a reasonable temporary solution until the Protocols are revised. A more permanent solution would be guided by the revised Protocols. When the Protocols are revised, various options, such as the one proposed by DRA of a stand-alone DBP, can be evaluated.

BIP Is Not Adversely Affected by 10% Cost Allocation

The allocation of 10% of DBP's administrative costs to BIP does not negatively affect the cost-effectiveness of BIP. BIP has a TRC test benefit cost-ratio of 1.28 in 2013 and 1.26 in 2014, after allocation of 10% DBP administrative costs to BIP[8] Since this TRC test benefit-cost ratio is greater than 0.9, BIP is still cost-effective after the 10% administrative cost allocation.

DBP is an important DR program in light of the unavailability of the San Onofre Nuclear Generating Station (SONGS) Units

The SONGS Units 2 and 3 are located in Southern California, and generate 2,340 MW of baseload power. In January 2012, Unit 3 was taken offline after a leak was detected in a steam generator tube. In the same month, Unit 2 was taken out of service for a scheduled outage. Both Units 2 and 3 are currently out of service. SONGS is responsible for providing substantial capacity to the Southern California region, and it plays an important role in the reliability of the California electricity grid. The unavailability of the generating capacity of SONGS units is a serious concern for grid reliability in Southern California.

Given the unavailability of SONGS, Energy Division advised SCE and SDG&E to submit Demand Response program applications by December 21, 2012.[9] The purpose of the applications is for the utilities to propose improvements and augmentations to their existing Demand Response portfolios to protect the state's electrical system from compromises to its reliability in the event of an unexpected generation outage, loss of transmission or hot weather.

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[8] SCE response to Energy Division Data Request, p. 3 dated November 20, 2012.

[9] Energy Division Letter to SCE and SDG&E requesting Demand Response Program Applications for Summer 2013 and 2014, dated November 16, 2012. SCE and SDG&E filed applications A.12-12-016 and A.12-12-017.

Demand Response programs in Southern California are more important than ever before. In 2012, there were eight DBP events triggered by SCE. On average, 82.6 MW were saved per event. At this time, it is critical to keep demand response options like DBP available for load reduction.

Approving SCE's 10% allocation method as a temporary solution puts to rest questions about the cost-effectiveness of this program until a more permanent solution can be found.

COMMENTS

Public Utilities Code section 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission. Section 311(g)(2) provides that this 30-day period may be reduced or waived upon the stipulation of all parties in the proceeding.

All parties in the proceeding have stipulated to reduce the 30-day waiting period required by PU Code section 311(g)(1) to 29 days. Accordingly, this matter will be placed on the first Commission's agenda twenty-nine days following the mailing of this draft resolution. By stipulation of all parties, comments shall be filed no later than 13 days following the mailing of this draft resolution, reply comments shall be filed no later than 19 days following the mailing, of this draft resolution.

On March 5, 2013, SCE and DRA submitted comments on the draft resolution. SCE supported the perspective of the draft resolution and clarified that the 10 percent allocation of DBP administrative costs to BIP takes place in the Demand Response reporting template for cost-effectiveness purpose and that no funds would be shifted to BIP. While DRA did not oppose approving SCE's DBP due to the interim nature of the cost-shift and the unavailability of the San Onofre Nuclear Generating Station (SONGS), DRA recommends the Draft Resolution be corrected for factual errors.

DRA claims that the draft resolution is in error when it states that crediting the load impacts of dually-participating DBP and BIP customers only to the BIP program understates the MW benefits of DBP and results in inaccurate cost-effectiveness valuation of programs with dually-enrolled customers. DRA recommends that the resolution should instead state that crediting the load impacts of dually-participating customers to BIP is done to avoid double-counting the available load reduction of the dual participants in anticipation of the potential for simultaneous events called by both programs. DRA also recommends that the resolution no longer state that the Protocols' practice of crediting only one program (in dual participation situations) results in inaccurate cost-effectiveness valuation of programs with dually-enrolled customers.

As noted previously in this resolution, the Protocols credit load impact to one program in dual participation situations because they follow Resource Adequacy rules. However, from a perspective of cost-effectiveness, this practice results in an inaccurate result. DBP has different triggering conditions than BIP. DBP is a triggered a day in advance of when the load reduction is needed, while BIP is triggered on the same day, and generally in emergency situations. In other words, the two programs serve different needs and the likelihood that they will ever be called simultaneously is very low. It would therefore be unreasonable to ignore the MWs that dually-participating customers can provide to one of the two programs. We therefore decline to accept DRA's suggested edits on this point. As noted previously this point was discussed in an October 2012 workshop on Demand Response cost-effectiveness. The consensus at that workshop was that the current method of estimating the cost-effectiveness of DR programs with dually-enrolled participants is inaccurate and requires modification[10].

DRA also states that "there is no relationship between administrative costs of dual-participating DBP MWs and the amount of costs shifted to BIP." SCE is not shifting costs to BIP. Rather, SCE is re-allocating, for the purpose of cost-effectiveness analysis only, some of the DBP administrative costs to BIP, in an attempt to offset the Protocol's current practice of awarding no dual-participation MWs to DBP. Cost-effectiveness analysis is only useful when the cost and benefit inputs used are accurate. The cost and benefit inputs used for DBP are not accurate when the current method is followed, because that method requires that *all* the costs of DBP (including administrative costs for dual participating customers) are assigned to DBP, but only *some* of the benefits. That is because the benefits, which consist of the avoided costs of supplying electricity, are based on the load impacts of the program. The current method

[10] DRA was a participant in this workshop.

requires that the majority of the DBP load impacts be assigned to BIP, since the majority of the DBP participants are also enrolled in BIP. As noted earlier, while this prevents double-counting for the purposes of Resource Adequacy and cost-effectiveness analysis of the entire DR portfolio, it does not provide a reasonable estimate of the costs and benefits of DBP.

During the October 2012 DR cost-effectiveness workshop, a number of potential remedies for this problem were discussed. It has not yet been determined which one will be used, but it is certain that there is consensus among DR stakeholders that the DR Cost-effectiveness Protocols should be changed to reflect this problem, and we intend to address this issue in a future DR proceeding.

There are many ways that SCE could have demonstrated a more accurate method of determining DBP cost-effectiveness. SCE chose to remedy the imbalance between DBP costs and benefits by re-allocating a portion of the DBP administrative costs. This is a reasonable approach for a temporary solution. Because the benefits of DBP are clearly underestimated, re-allocating a portion of its costs provides a more accurate estimate of the relative costs and benefits of the program. As SCE has shown, even a small (10%) re-allocation of costs, which is made to offset the large (88%) reduction in benefits, makes the program cost-effective. Since SCE is only re-allocating this cost to BIP for the purpose of demonstrating the cost-effectiveness of DBP, and not actually shifting any funds from DBP to BIP, we see no reason to revise this resolution according to DRA's protest.

No party filed reply comments.

FINDINGS AND CONCLUSIONS

1. Commission Decision (D.12-04-045) directed Southern California Edison to submit a Tier 2 Advice Letter within 60 days of the issuance of this Decision indicating which steps it will take to make the Demand Bidding Program (DBP) cost-effective and/or adjust the budget accordingly.

2. DBP is an important program to aid grid reliability in light of the unavailability of the San Onofre Nuclear Generating Station Units.

3. By Advice Letter 2751-E, SCE submitted a revised Cost-Effective plan for DBP with a new TRC test benefit-cost ratio of 0.97 in 2013 and 0.91 in 2014.

4. The revised Cost-Effective plan for DBP outlined three steps: remove the non-performers from the program, reduce program labor and ME&O costs, and allocate 10% of the DBP administrative costs to the Base Interruptible Program (BIP).

5. The Division of Ratepayer Advocates (DRA) protested SCE's revised cost-effective plan which proposed allocating 10% of the administrative costs of DBP to BIP.

6. Demand response cost-effectiveness protocols are being revised, including rules pertaining to dual participation between programs.

7. There is dual participation between the DBP and BIP.

8. Current cost-effectiveness protocols credit load impacts of dually enrolled customers (of DBP and BIP) to BIP.

9. SCE's 10% allocation of DBP costs to BIP is conservative, and likely understates the amount of DBP costs that should be assigned to BIP using customer participation in the two programs as a metric.

10. SCE's 10% proposed allocation of DBP administrative costs to BIP is a reasonable temporary solution until the Protocols are revised.

11. BIP remains cost-effective after the allocation of the 10% DBP administrative costs.

12. DRA's protest to Advice Letter 2751-E should be rejected because SCE provided supplemental information in its response explaining the rationale for its calculations, which responded to the legitimate concern raised by DRA.

THEREFORE IT IS ORDERED THAT:

1. The request of Southern California Edison to approve its Revised Cost-Effectiveness Result for the Demand Bidding Program as requested in Advice Letter AL 2751-E is approved.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on March 21, 2013; the following Commissioners voting favorably thereon:

Paul Clanon
Executive Director